

BOOK REVIEW

Seashore Ecology

by Thomas Carefoot with Rodney D. Simpson

University of Queensland Press: St Lucia 1985 ISBN 0 7022 1913 4

Pp. xxii+278; 89 Figs; 36 col. Pls., R.R.P.: \$35.00 (cloth)

I was delighted when first asked to review this book, as I already owned copies of the other three volumes in the Australian Ecology series and consider them excellent. However, I was disappointed to learn that *Seashore Ecology* is a version of Thomas Carefoot's *Pacific Seashores: A Guide to Intertidal Ecology* which has been adapted for Australian conditions by Rodney Simpson.

My response to this revelation was to wonder why it had not been possible to find authors who could produce a book on Australian intertidal ecology and, after reading the book, I felt uncertain as to how successful the adaptation of Carefoot's work to Australian conditions had been.

The book is well organised. The first chapter, "The Seashore", is a good summary of the origin and movement of continents. However, the section on the evolution of shorelines could have been expanded to include a discussion on the impact of rivers on coastal geomorphology.

In the second chapter a very good discussion of "Waves, Tides and Currents" is given. Many books of this nature often ignore a basic explanation of these important aspects of intertidal ecology, assuming that the reader is already familiar with them.

The next three chapters deal respectively with: "Distribution of Organisms on the Shore"; "The Causes of Zonation and Distributions of Organisms"; and "The Economy of the Shore". In these chapters the bias of the book towards temperate rocky shores becomes obvious.

It is true this bias is admitted to in the Preface, and that the reasons given are partly correct, i.e. that the diversity and accessibility of rocky shore organisms means more work has been done on rocky shores than in sandy or muddy habitats. However, I would

contend that many muddy habitats are more diverse than their rocky counterparts, and that this volume inadequately covers the research that *has* been done on muddy, intertidal habitats. Reference to works such as Gray (1981) would have been valuable.

Perhaps much of my dissatisfaction stems from my position as a marine scientist working in the Northern Territory, where only 8.9% of the local coastline can be considered rocky and 47.5% muddy. These percentages are taken from Table 3 on page 197. By contrast, in New South Wales things are a little different, with coastlines comprising only 1.1% muddy versus 32.5% rocky shores.

Consequently, I consider that while the book's bias towards the eastern coastline (particularly the south-east intertidal habitats) is hardly surprising given the paucity of information on the intertidal ecology of the rest of the Australian coastline (especially the tropical sections of that coastline), a better attempt could have been made to include what we do know. There is, for example, no mention of the presence of corals in the intertidal zone of tropical and subtropical Australian waters.

The chapter on "Seashore Vegetation" is well done, although I was surprised to note that it was prepared by two other authors, Barson and Heatwole, who are acknowledged in a footnote on page 195. Mangroves are poorly treated here though this is justified in light of the forthcoming volume in this series entitled *Ecology of Mangroves*.

The last chapter is also quite a useful discussion of the problems of pollution and is a welcome addition to texts of this type.

The Glossary is larger than a lot of others I have seen and the definitions are concise and clear. The Bibliography and Index are also well laid out and easy to use.

I could find very few errors in the text and was generally impressed with the clarity of the figures. There were a couple of instances, however, when parts of the figures had been lost during production of the book. Figures 34 and 35 on pages 64 and 65, for example, are both incomplete on the right-hand margin.

Colour plates enhance the appearance of any work and the plates shown here are of a high standard.

In summary, I find this book to be limited in usefulness in those parts of Australia with coastlines that are not dominated by rocky shores. If you do live, as the majority of

Australians do, on temperate shores with a preponderance of rocky habitats, then this work is the best summary of intertidal ecology currently available.

REFERENCES

Gray, J.A. 1981 *Ecology of Marine Sediments: An Introduction to the Structure & Function of Benthic Communities*. Cambridge University Press: Cambridge.

Russell Hanley
Northern Territory Museum of Arts and
Sciences
GPO Box 4646
DARWIN NT 5794, Australia

MAIN
D21

S1152